**Ignatius and the Princess III**

**Time Limit: 2000/1000 MS (Java/Others)    Memory Limit: 65536/32768 K (Java/Others)  
Total Submission(s): 14250    Accepted Submission(s): 10026**

**Problem Description**

"Well, it seems the first problem is too easy. I will let you know how foolish you are later." feng5166 says.  
  
"The second problem is, given an positive integer N, we define an equation like this:  
  N=a[1]+a[2]+a[3]+...+a[m];  
  a[i]>0,1<=m<=N;  
My question is how many different equations you can find for a given N.  
For example, assume N is 4, we can find:  
  4 = 4;  
  4 = 3 + 1;  
  4 = 2 + 2;  
  4 = 2 + 1 + 1;  
  4 = 1 + 1 + 1 + 1;  
so the result is 5 when N is 4. Note that "4 = 3 + 1" and "4 = 1 + 3" is the same in this problem. Now, you do it!"

**Input**

The input contains several test cases. Each test case contains a positive integer N(1<=N<=120) which is mentioned above. The input is terminated by the end of file.

**Output**

For each test case, you have to output a line contains an integer P which indicate the different equations you have found.

**Sample Input**

4

10

20

**Sample Output**

5

42

627

**Author**

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**Recommend**

We have carefully selected several similar problems for you:  [1171](http://acm.hdu.edu.cn/showproblem.php?pid=1171) [1398](http://acm.hdu.edu.cn/showproblem.php?pid=1398) [2152](http://acm.hdu.edu.cn/showproblem.php?pid=2152) [1709](http://acm.hdu.edu.cn/showproblem.php?pid=1709) [1114](http://acm.hdu.edu.cn/showproblem.php?pid=1114)